



DETAILED INFORMATION ON THE CHESAPEAKE BAY PROGRAM ASSESSMENT

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Program Code	10004302										
Program Title	Chesapeake Bay Program										
Department Name	Environmental Protection Agency										
Agency/Bureau Name	Environmental Protection Agency										
Program Type(s)	Direct Federal Program Block/Formula Grant Competitive Grant Program										
Assessment Year	2006										
Assessment Rating	Moderately Effective										
Assessment Section Scores	<table> <tr> <th>Section</th><th>Score</th></tr> <tr> <td>Program Purpose & Design</td><td>100%</td></tr> <tr> <td>Strategic Planning</td><td>88%</td></tr> <tr> <td>Program Management</td><td>91%</td></tr> <tr> <td>Program Results/Accountability</td><td>67%</td></tr> </table>	Section	Score	Program Purpose & Design	100%	Strategic Planning	88%	Program Management	91%	Program Results/Accountability	67%
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Program Funding Level (in millions)	<table> <tr> <td>FY2007</td><td>\$27</td></tr> <tr> <td>FY2008</td><td>\$31</td></tr> <tr> <td>FY2009</td><td>\$29</td></tr> </table>	FY2007	\$27	FY2008	\$31	FY2009	\$29				
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- [Ongoing Program Improvement Plans](#)
- [Completed Program Improvement Plans](#)
- [Program Performance Measures](#)
- [Questions/Answers \(Detailed Assessment\)](#)

Ongoing Program Improvement Plans

Year Began	Improvement Plan	Status	Comments
2006	Developing a comprehensive implementation strategy that is coordinated between program partners and accurately accounts for available resources.	Action taken, but not completed	Substantial progress made in the first phase of developing an integrated strategic plan that includes accounting for federal expenditures. This phase to be completed in 2008. Second phase will involve similar resource accounting by state partners. Phase 2 to be completed in 2009.
2006	Promoting and tracking implementation of the most cost effective restoration activities to maximize water quality improvements.	Action taken, but not completed	Performance and management implications. VA, HB 1150 "Chesapeake Bay and Virginia Waters Clean-Up Plan" identifies cost-effective practices in agriculture and forestry. MD, increases in cover crop cost-share program funded by Chesapeake Bay Restoration Fund. PA, baseline and threshold requirements for agricultural participation in the PA DEP Nutrient Trading Program focusing on compliance with state Act 38 Nutrient Management Regulations, manure management, and riparian forest buffers.
2006	Improved tracking and explanation of the current efficiency measure.	Action taken, but not completed	
2006	Improved explanation of	Action	

current long term and annual outcome and output measures.

taken, but not completed

Completed Program Improvement Plans

Year Began	Improvement Plan	Status	Comments
2006	Investigating potential methods to more transparently characterize the uncertainty of the watershed and water quality models, ideally leading to implementation of a method, if feasible.	Completed	The watershed model calibration methodology, which is a precursor to a meaningful uncertainty analysis, is expected to be completed by February 2008. A STAC expert panel is giving a review of the watershed model in late January and may make recommendations on the uncertainty methods.

Program Performance Measures

Term	Type																																																																												
Long-term	Outcome	<p>Measure: Percent of Submerged Aquatic Vegetation goal of 185,000 acres achieved, based on annual monitoring from prior year.</p> <p><i>Explanation:</i> The SAV measure is reported as the % of long term goal achievement of 185,000 acres of SAV. The long term restoration goal of 185,000 acres is based upon historical Chesapeake Bay SAV abundance and distribution records dating back to late 1930's. The reported information is based on annual monitoring from the prior year. 2011 target reflects target in the draft EPA 2006-2011 Strategic Plan.</p> <table border="1"> <thead> <tr> <th>Year</th><th>Target</th><th>Actual</th></tr> </thead> <tbody> <tr><td>1985</td><td>base year</td><td>21% (38,226 acres)</td></tr> <tr><td>1986</td><td>increased acreage</td><td>27% (49,106 acres)</td></tr> <tr><td>1987</td><td>increased acreage</td><td>26% (47,412 acres)</td></tr> <tr><td>1988</td><td>increased acreage</td><td>27% (49,638 acres)</td></tr> <tr><td>1990</td><td>increased acreage</td><td>32% (59,679 acres)</td></tr> <tr><td>1991</td><td>increased acreage</td><td>32% (60,025 acres)</td></tr> <tr><td>1992</td><td>increased acreage</td><td>34% (63,319 acres)</td></tr> <tr><td>1993</td><td>increased acreage</td><td>38% (70,857 acres)</td></tr> <tr><td>1994</td><td>increased acreage</td><td>40% (73,111 acres)</td></tr> <tr><td>1995</td><td>increased acreage</td><td>35% (65,443 acres)</td></tr> <tr><td>1996</td><td>increased acreage</td><td>32% (59,926 acres)</td></tr> <tr><td>1997</td><td>increased acreage</td><td>34% (63,494 acres)</td></tr> <tr><td>1998</td><td>increased acreage</td><td>37% (69,226 acres)</td></tr> <tr><td>1999</td><td>increased acreage</td><td>34% (63,515 acres)</td></tr> <tr><td>2000</td><td>increased acreage</td><td>37% (68,097 acres)</td></tr> <tr><td>2001</td><td>increased acreage</td><td>37% (69,154 acres)</td></tr> <tr><td>2002</td><td>increased acreage</td><td>46% (85,411 acres)</td></tr> <tr><td>2003</td><td>increased acreage</td><td>48% (89,655 acres)</td></tr> <tr><td>2004</td><td>increased acreage</td><td>35% (63,524 acres)</td></tr> <tr><td>2005</td><td>increased acreage</td><td>39% (72,942 acres)</td></tr> <tr><td>2006</td><td>increased acreage</td><td>42% (78,260 acres)</td></tr> <tr><td>2007</td><td>increased acreage</td><td>32% (59,160 acres)</td></tr> <tr><td>2008</td><td>increased acreage</td><td>35% (64,912 acres)</td></tr> <tr><td>2011</td><td>45%</td><td>(83,250 acres)</td></tr> </tbody> </table>	Year	Target	Actual	1985	base year	21% (38,226 acres)	1986	increased acreage	27% (49,106 acres)	1987	increased acreage	26% (47,412 acres)	1988	increased acreage	27% (49,638 acres)	1990	increased acreage	32% (59,679 acres)	1991	increased acreage	32% (60,025 acres)	1992	increased acreage	34% (63,319 acres)	1993	increased acreage	38% (70,857 acres)	1994	increased acreage	40% (73,111 acres)	1995	increased acreage	35% (65,443 acres)	1996	increased acreage	32% (59,926 acres)	1997	increased acreage	34% (63,494 acres)	1998	increased acreage	37% (69,226 acres)	1999	increased acreage	34% (63,515 acres)	2000	increased acreage	37% (68,097 acres)	2001	increased acreage	37% (69,154 acres)	2002	increased acreage	46% (85,411 acres)	2003	increased acreage	48% (89,655 acres)	2004	increased acreage	35% (63,524 acres)	2005	increased acreage	39% (72,942 acres)	2006	increased acreage	42% (78,260 acres)	2007	increased acreage	32% (59,160 acres)	2008	increased acreage	35% (64,912 acres)	2011	45%	(83,250 acres)
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Long-term	Outcome	<p>Measure: Percent of Dissolved Oxygen goal of 100% standards attainment achieved, based on annual monitoring from the previous calendar year and the preceding 2 years.</p> <p><i>Explanation:</i> This measure is reported as % of long term goal achieved. The long term goal is 100 % of volume of the tidal waters attaining the state water quality standards for dissolved oxygen over a 3</p>																																																																											

year assessment window for each designated use. The results are based on monitoring data from the previous calendar year (and the preceding 2 years). 2011 target reflects target contained in the draft EPA 2006-2011 Strategic Plan.

Year	Target	Actual
1988	base year	15% (11.05 cubic km)
1989	increased attainment	16% (12.01 cubic km)
1990	increased attainment	15% (11.51 cubic km)
1991	increased attainment	16% (11.6 cubic km)
1992	increased attainment	10% (7.35 cubic km)
1993	increased attainment	10% (7.33 cubic km)
1994	increased attainment	12% (8.69 cubic km)
1995	increased attainment	24% (17.61 cubic km)
1996	increased attainment	23% (17.39 cubic km)
1997	increased attainment	32% (23.91 cubic km)
1998	increased attainment	36% (26.85 cubic km)
1999	increased attainment	36% (26.85 cubic km)
2000	increased attainment	30% (22.26 cubic km)
2001	increased attainment	25% (18.92 cubic km)
2002	increased attainment	17% (12.58 cubic km)
2003	increased attainment	28% (20.59 cubic km)
2004	increased attainment	25% (18.51 cubic km)
2005	increased attainment	30% (22.73 cubic km)
2006	increased attainment	14% (10.47 cubic km)
2007	increased attainment	28% (20.94 cubic km)
2008	increased attainment	12% (8.98 cubic km)
2011	40% (29.92 cubic km)	

Annual Output

Measure: Percent of goal achieved for implementation of phosphorus reduction practices (expressed as progress meeting the phosphorus reduction goal of 14.36 million pounds).

Explanation: Implementation of point & non-point source phosphorus reduction practices throughout the Bay watershed, expressed as % of phosphorus reduction goal achieved. The phosphorus goal is a 14.36 million pound reduction from 1986 levels to achieve an annual cap load of 12.8 million lbs (based on long-term average hydrology simulations). Achieving this cap load is expected to result in achievement of the long-term restoration goals for submerged aquatic vegetation and dissolved oxygen. Point source loads are monitored and non-point source loads are simulated based on reported implementation of best management practices (BMPs) that reduce phosphorus pollution. The simulation removes annual hydrological variations in order to measure the effectiveness of BMP implementation and converts the numerous BMPs, with various pollution reduction efficiencies -- depending on type and location in the watershed -- to a common currency of phosphorus reduction.

Year	Target	Actual
1986	base year	0% (0 pounds)
2001	48.8% (7 M pounds)	52% (7.48 M pounds)
2002	58.5% (8.4 M pounds)	56% (8.02 M pounds)
2003	58.5% (8.4 M pounds)	58% (8.36 M pounds)
2004	58.5% (8.4 M pounds)	53% (7.64 M pounds)
2005	60.6% (8.7 M pounds)	58% (8.39 M pounds)
2006	61% (8.76 M pounds)	60% (8.67 M lbs)
2007	64% (9.19 M pounds)	62% (8.83 M pounds)
2008	66% (9.48 M pounds)	62% (8.90 M pounds)
2009	64% (9.19 M pounds)	
2010	66% (9.48 M pounds)	

Annual Output

Measure: Percent of goal achieved for implementation of nitrogen reduction practices

(expressed as progress meeting the nitrogen reduction goal of 162.5 million pounds reduced.

Explanation: Implementation of point & non-point source nitrogen reduction practices throughout the Bay watershed, expressed as % of nitrogen reduction goal achieved. The nitrogen goal is a 162.5 million pound reduction from 1986 levels to achieve an annual cap load of 175 million lbs (based on long-term average hydrology simulations). Achieving this cap load is expected to result in achievement of the long-term restoration goals for submerged aquatic vegetation and dissolved oxygen. Point source loads are monitored and non-point source loads are simulated based on reported implementation of best management practices (BMPs) that reduce nitrogen pollution. The simulation removes annual hydrological variations in order to measure the effectiveness of BMP implementation and converts the numerous BMPs, with various pollution reduction efficiencies -- depending on type and location in the watershed -- to a common currency of nitrogen reduction.

Year	Target	Actual
1986	base year	0% (0 pounds)
2001	44% (71 M pounds)	30% (49.3 M pounds)
2002	46% (74 M pounds)	33% (52.82 M pounds)
2003	46% (74 M pounds)	38% (62.4 M pounds)
2004	46% (74 M pounds)	37% (59.85 M pounds)
2005	46% (74 M pounds)	41% (67.42 M pounds)
2006	44% (71.5 M pounds)	44% (71.2 M lb)
2007	47% (76.38 M pounds)	46% (74.63 M pounds)
2008	50% (81.25 M pounds)	47% (75.60 M pounds)
2009	50% (81.19 M pounds)	
2010	52% (84.44 M pounds)	

Annual Output

Measure: Percent of goal achieved for implementation of sediment reduction practices (expressed as progress meeting the sediment reduction goal of 1.69 million tons reduced.

Explanation: Implementation of sediment reduction practices throughout the Bay watershed, expressed as % of land-based sediment reduction goal achieved. The sediment reduction goal is a 1.69 million ton reduction from 1986 levels to achieve an annual cap load of 4.15 million tons (based on average hydrology simulations). Achieving this cap load is expected to result in achievement of the long-term restoration goals for submerged aquatic vegetation and dissolved oxygen. Loads are simulated based upon reported implementation of best management practices (BMPs) that reduce sediment pollution. The simulation removes annual hydrological variations in order to measure the effectiveness of BMP implementation and converts the numerous BMPs, with various pollution reduction efficiencies -- depending on type and location in the watershed -- to a common currency of sediment reduction.

Year	Target	Actual
2009	67% (1.13 M tons)	
1986	base year	0% (0 tons)
2002	greater reductions	47% (0.79 M tons)
2003	greater reductions	51% (0.86 M tons)
2004	greater reductions	47% (0.79 M tons)
2005	63% (1.06 M tons)	54% (0.91 M tons)
2006	57% (0.96 M tons)	57% (0.96 M tons)
2007	61% (1.03 M tons)	61% (1.03 M tons)
2008	64% (1.08 M tons)	64% (1.07 M tons)
2010	71% (1.20 M tons)	

Annual Outcome

Measure: Percent of point source nitrogen reduction goal of 49.9 million pounds achieved.

Explanation: Point source nitrogen reductions are reported as % of goal achieved. The goal for point source nitrogen reductions is 49.9 million pound reduction from 1986 levels. Point source nitrogen data is reported based upon monitored results from the previous year.

Year	Target	Actual
1986	base year	0% (0 pounds)
1988	greater reduction	2% (1.16 M pounds)
1991	greater reduction	9% (4.53 M pounds)
1992	greater reduction	17% (8.26 M pounds)
1993	greater reduction	16% (8.04 M pounds)
1994	greater reduction	17% (8.34 M pounds)
1995	greater reduction	19% (9.31 M pounds)
1996	greater reduction	26% (12.97 M pounds)
1997	greater reduction	26% (12.76 M pounds)
1998	greater reduction	45% (22.23 M pounds)
1999	greater reduction	46% (23.08 M pounds)
2000	greater reduction	49% (24.20 M pounds)
2001	greater reduction	50% (24.88 M pounds)
2002	greater reduction	58% (28.76 M pounds)
2003	greater reduction	59% (29.35 M pounds)
2004	greater reduction	53% (26.56 M pounds)
2005	greater reduction	61% (30.41 M pounds)
2006	65% (32.44 M pounds)	68% (33.73 M pounds)
2007	70% (34.93 M pounds)	69% (34.51 M pounds)
2008	74% (36.93 M pounds)	69% (34.29 M pounds)
2009	74% (36.92 M pounds)	
2010	79% (39.42 M pounds)	

Annual Outcome **Measure:** Percent of point source phosphorus reduction goal of 6.16 million pounds achieved.

Explanation: Point source phosphorus reductions are reported as % of goal achieved. The goal for point source phosphorus reductions is 6.16 million pound reduction from 1986 levels. Point source phosphorus data is reported based upon monitored results from the previous year.

Year	Target	Actual
1986	base year	0% (0 pounds)
1987	greater reductions	3% (0.18 M pounds)
1988	greater reductions	15% (0.95 M pounds)
1989	greater reductions	37% (2.25 M pounds)
1990	greater reductions	52% (3.23 M pounds)
1991	greater reductions	57% (3.53 M pounds)
1992	greater reductions	61% (3.77 M pounds)
1993	greater reductions	66% (4.08 M pounds)
1994	greater reductions	72% (4.43 M pounds)
1995	greater reductions	70% (4.3 M pounds)
1996	greater reductions	76% (4.7 M pounds)
1997	greater reductions	72% (4.42 M pounds)
1998	greater reductions	81% (4.97 M pounds)
1999	greater reductions	77% (4.74 M pounds)
2000	greater reductions	84% (5.2 M pounds)
2001	greater reductions	80% (4.92 M pounds)
2002	greater reductions	83% (5.12 M pounds)
2003	greater reductions	79% (4.87 M pounds)
2004	greater reductions	76% (4.65 M pounds)
2005	greater reductions	80% (4.93 M pounds)
2006	82% (5.05 M pounds)	84% (5.18 M pounds)

2007	84% (5.17 M pounds)	87% (5.36 M pounds)
2008	85% (5.24 M pounds)	87% (5.36 M pounds)
2009	87% (5.36 M pounds)	
2010	89% (5.48 M pounds)	

Annual Output

Measure: Percent of forest buffer planting goal of 10,000 miles achieved.

Explanation: Forest buffer planting is reported as % of goal achieved. The long term goal is to plant 10,000 miles of forest buffers. The information is based on cumulative acres planted since 1997 provided by the states for the previous year. Streamside forest buffers provide habitat for wildlife, stabilize banks from erosion, and keep river waters cool, an important factor for many fish. They also naturally absorb nutrients and sediments, thus improving water quality in neighboring streams.

Year	Target	Actual
1997	base year	0.1% (11 miles)
1998	increased miles	0.8% (79 miles)
1999	increased miles	2.3% (234 miles)
2000	increased miles	4.6% (456 miles)
2001	6% (616 miles)	6.7% (669 miles)
2002	8% (756 miles)	12% (1,189 miles)
2003	20% (2,010 miles)	23% (2,311 miles)
2004	30% (3,000 miles)	30% (3,038 miles)
2005	40% (4,000 miles)	38% (3,791 miles)
2006	46% (4,600 miles)	46% (4,606 miles)
2007	53% (5,300 miles)	53% (5,337 miles)
2008	60% (6,000 miles)	57% (5,722 miles)
2009	62% (6,182 miles)	
2010	65% (6,522 miles)	

Annual Efficiency

Measure: Total nitrogen reduction practices implementation achieved as a result of agricultural best management practice implementation per million dollars to implement agricultural BMPs.

Explanation: This efficiency measure uses an estimate of the nitrogen load reduction resulting from implementation of agricultural best management practices per million dollars spent on agricultural BMP implementation. Nitrogen load reduction estimates are derived from the Chesapeake Bay Program Model using simulated non-point source load reduction based on reported implementation of agricultural best management practices (BMPs) that reduce nitrogen under average hydrology conditions. The simulation removes annual hydrological variations in order to measure the effectiveness of agricultural BMP implementation and converts the agricultural BMPs, with various pollution reduction efficiencies depending on type and location in the watershed to a common currency of nitrogen reduction. Agricultural BMP costs include all capital and O&M costs assumed by both landowners and government agencies. This measure focuses on agricultural BMPs because they are the most cost effective way to reduce nutrient loading in the watershed.

Year	Target	Actual
2001	Baseline	43,289
2002	NA	47,729
2003	NA	51,928
2004	NA	55,286
2005	NA	46,801
2006	49,113	45,928
2007	47,031	43,529
2008	48,134	TBD
2009	48,134	
2010	48,134	

Questions/Answers (Detailed Assessment)

Section 1 - Program Purpose & Design			
Number	Question	Answer	Score
1.1	<p>Is the program purpose clear?</p> <p><i>Explanation:</i> The Chesapeake Bay Program's authorizing legislation (Chesapeake Bay Restoration Act of 2000) clearly states that the purposes are to "(1) to expand and strengthen cooperative efforts to restore and protect the Chesapeake Bay; and (2) to achieve the goals established in the Chesapeake Bay Agreement" [Sect. 202(b)(1)]. Furthermore the authorizing legislation distinguishes between the Chesapeake Bay Program and the Chesapeake Bay Program Office. The legislation defines the Chesapeake Bay Program as the comprehensive cooperative effort aimed at achieving improved water quality and improvements in the productivity of living resources of the Bay. The Program involves the federal government, acting through the Environmental Protection Agency (EPA), and the jurisdictions which have signed the Chesapeake Bay Agreement. [Sec 117 (a)(4) Sec 202 (a) (4)] In addition, the Chesapeake Bay Restoration Act of 2000 states that EPA shall maintain the Chesapeake Bay Program Office. The legislation lists specific functions for the Chesapeake Bay Program Office including: implementing and coordinating science, research, modeling, support services, monitoring, data collection, and other activities that support the Chesapeake Bay Program; developing and making available information pertaining to the environmental quality and living resources of the Chesapeake Bay ecosystem; assisting the signatories to the Chesapeake Bay Agreement in developing and implementing specific action plans; and fostering stewardship of the resources of the Chesapeake Bay. [Sec 117 (b)(2)] The legislation also authorizes EPA to provide technical assistance and grants in support of the mission to restore water quality and living resources in the Chesapeake Bay.</p> <p><i>Evidence:</i> Chesapeake Bay Restoration Act of 2000, P.L. 106-457, Title 2; Chesapeake 2000 Agreement (http://www.chesapeakebay.net/wqcchesapeake2000.htm); Federal Water Pollution Control Act, (as amended through Public Law 107-303, November 27, 2002); Clean Water Act, as amended by the Water Quality Act of 1987, Public Law 100-4, Section 117</p>	YES	20%
1.2	<p>Does the program address a specific and existing problem, interest, or need?</p> <p><i>Explanation:</i> The Chesapeake Bay is the largest estuary in the United States and estimates for the economic value of the Bay are between \$0.5 to over \$1 trillion. People use the Bay for a variety of activities from recreation to fishing. However, these uses have also put large stress on the bay's water quality and living resources. This is complicated by the growing population, which places increasing stress on the carrying capacity of the ecosystem. In the past 50 years, the population in the Chesapeake Bay watershed has doubled from approximately 8 million in 1950 to over 15 million in 2000. As a result, the tidal waters of the Chesapeake Bay and its tributaries are listed on EPA's impaired waters list based on exceeding water quality standards for dissolved oxygen, submerged aquatic vegetation and water clarity. These impairments are primarily caused by nutrient and sediment discharges in excess of levels the Bay can handle while maintaining its designated uses. Typically, the state where the impairment is located is responsible for restoring the water body to meet water quality standards. However, the Chesapeake Bay tidal waters cut across 3 states (Maryland, Virginia, and Delaware) and the District of Columbia and the entire watershed covers an additional 3 states (New York, Pennsylvania, and West Virginia). Furthermore, no single state alone can restore the waters of the Chesapeake Bay; rather the restoration must take a coordinated approach. Therefore, the federal presence in the Chesapeake Bay Program (CBP), lead by the EPA CBP Office (CBPO), is particularly important for assuring coordination and cooperation of restoration activities across state boundaries.</p> <p><i>Evidence:</i> Federal Water Pollution Control Act, (as amended through Public Law 107-303, November 27, 2002); Saving a National Treasure: Financing the Cleanup of the Chesapeake Bay; Water Quality Trends in Tidal Bay and Tributaries available at http://www.chesapeakebay.net/wquality.htm; Eutrophication of Chesapeake Bay: Historical Trends and Ecological Interactions. Marine Ecology Progress Series, Vol. 303 p. 1-29; Scientific and Technical Advisory Committee (STAC) Futures Report available at http://www.chesapeake.org/stac/futreport.html; Population growth in the Chesapeake Bay Watershed, 1985-2003 available at http://www.chesapeakebay.net/land.htm</p>	YES	20%

1.3	<p>Is the program designed so that it is not redundant or duplicative of any other Federal, state, local or private effort?</p> <p><i>Explanation:</i> No other Federal, state, local, or private effort undertakes a comprehensive assessment and restoration program in the Chesapeake Bay watershed. EPA performs the coordination function and other federal partners mostly provide technical support. The partner states protect the interests of the states. Private efforts are largely geared to education and advocacy. No other program provides a platform that enables the states to create large scale restoration strategies and work together equitably to devise plans for applying their resources to restore the Bay. Complementing its coordination role, the CBPO provides the monitoring, modeling, and science that creates a credible and fair basis for the states to feel confident that state and federal funds will be applied in a way that is prioritized and not duplicative or conflicting. The program is specifically designed to reduce the possibility of overlap.</p> <p><i>Evidence:</i> Chesapeake Bay Restoration Act of 2000, P.L. 106-457, Title 2; Chesapeake 2000 Agreement (http://www.chesapeakebay.net/wqcchesapeake2000.htm); Program designed to avoid overlap: Implementation Committee coordination responsibilities (http://www.chesapeakebay.net/committee.htm)</p>	YES	20%
1.4	<p>Is the program design free of major flaws that would limit the program's effectiveness or efficiency?</p> <p><i>Explanation:</i> There is no strong evidence that the Chesapeake Bay Program or the Chesapeake Bay Program Office has major design flaws indicating an alternative approach would be more effective or efficient for restoring the Chesapeake Bay. Reviews of the program have suggested modifications or improvements to the current approach. These are addressed in subsequent questions.</p> <p><i>Evidence:</i></p>	YES	20%
1.5	<p>Is the program design effectively targeted so that resources will address the program's purpose directly and will reach intended beneficiaries?</p> <p><i>Explanation:</i> The Chesapeake Bay Program Office applies grant management policies to assure that resources are used effectively to help meet the program's mission. The program also has a flexible, annual collaborative budget allocation process through the Budget Steering Committee that assures that top priorities are funded annually without duplicating or subsidizing other sources of funding. Implementation and monitoring grants are issued under the Bay Program's statutory authority (CWA section 117e) to implement the Chesapeake 2000 Agreement and to advance and monitor the health and restoration efforts within the Chesapeake Bay. The broad program goals are oriented to achieving designated uses of Bay waters so that the Bay is available to intended beneficiaries for commercial and recreational uses. The CBPO also issues competitive grants under statutory authority (CWA section 117d). Outcomes related to program purpose and goals are documented throughout the life cycle of these grants as described in CBPO Grant Guidance. Annual work plans and associated budgets for all grants are approved by EPA Project Officers and used to ensure that resources reach beneficiaries while supporting Program goals. Project plans and grantee performance monitoring reflects achievement of tasks that have been designed to contribute to the program's purpose. Finally, the CBPO has issued targeted watershed grants under statutory authority (CWA section 104) to identify and fund innovative nonpoint source nutrient pollution projects that by definition are outside normal funding mechanisms. Broad competition and rigorous screening by expert panels assure that grants go to those projects most likely to achieve environmental results, which are linked to Tributary Strategies. Grants guidance established a rating system that put a premium on effective nonpoint source nutrient removal projects. Funds provided through CBPO grants are a relatively small portion of total annual restoration funding. This fact, combined with the close tracking of the grants by the CBPO, allows for minimization of unintended subsidies.</p> <p><i>Evidence:</i> EPA Chesapeake Bay Program Office Grant and Cooperative Agreement Guidance (http://www.epa.gov/region3/chesapeake/grants/2006_CBP_Grant_Guidance.pdf); Chesapeake Bay Program Office Grants Progress Reports</p>	YES	20%

(<http://www.epa.gov/region3/chesapeake/grants/progress.htm>); General Information on Chesapeake Bay Program Office Grants
 (<http://www.epa.gov/region3/chesapeake/grants.htm#Other>); Introduction to State Implementation Grants Funded Under Section 117; Introduction to Monitoring Grants Funded Under Section 117; Budget Steering Committee Scope and Purpose; ; White Paper explaining the Small Watershed and the Targeted Watershed grant programs

Section 1 - Program Purpose & Design Score 100%

Section 2 - Strategic Planning

Number	Question	Answer	Score
2.1	<p>Does the program have a limited number of specific long-term performance measures that focus on outcomes and meaningfully reflect the purpose of the program?</p> <p><i>Explanation:</i> The Chesapeake Bay Program has two long-term performance measures that focus on the environmental outcomes of the program. These two measures track progress in achieving (1) the long term 185,000 acre restoration goal for submerged aquatic vegetation (SAV) and (2) the long term dissolved oxygen (DO) goal of 100% attainment of DO water quality standards. The EPA 2003-2008 Strategic Plan includes SAV as the long term measure. EPA's 2006-2011 Strategic Plan includes both strategic measures. SAV are an excellent measure of progress for Chesapeake Bay restoration efforts because they are not under harvest pressure and their health is closely linked to water quality. SAV produce oxygen, supply food, offer shelter and nursery habitat for fish and shellfish, reduce wave action and shoreline erosion, absorb excess nutrients and trap sediments. Increased grasses are expected in areas where water quality is improving. DO is the amount of oxygen in a given quantity of water. To support aquatic life, DO levels must exceed certain minimum requirements, as defined by the states' water quality standards.</p> <p><i>Evidence:</i> 2006-2011 EPA Strategic Plan; Indicator Framework; Chesapeake Bay 2005 Health and Restoration Assessment: Part One - Ecosystem Health; Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity, and Chlorophyll a for the Chesapeake Bay and Its Tidal Tributaries: 2004 Addendum; Backgrounder: Chesapeake Bay Underwater Grasses (http://www.chesapeakebay.net/pubs/SAV_general_Backgrounder.pdf); Backgrounder: What is Dissolved Oxygen and Why is it Important to the Chesapeake Bay? (http://www.chesapeakebay.net/pubs/doc-do_101_backgrounder.pdf)</p>	YES	12%
2.2	<p>Does the program have ambitious targets and timeframes for its long-term measures?</p> <p><i>Explanation:</i> The EPA Chesapeake Bay Program Office (CBPO) has specific quantified baselines, ambitious targets and timeframes for its long-term measures. In addition, the program has well defined end targets. The ecologically based end targets, interim targets, and timeframes for both measures have been scrutinized by independent scientific peer review. The initial SAV restoration goal of 114,000 acres (set in 1993), reflecting the total area vegetated at one time since the early 1970s. In 2003 the CBP utilized improved science to set an ambitious ecologically based restoration goal of 185,000 acres. This target represents the sum of historical maximum acreages observed in individual segments of the Bay since the 1930s. Since bay-wide monitoring began in 1978, the highest bay-wide acreage was 89,655. The CBPO consulted independent experts to develop a timeframe for achieving this goal. Based on anticipated nutrient/sediment reductions, knowledge/experience with SAV recovery, and geographic location of SAV beds, the expected date for achieving 185,000 acres is 2040. Interim SAV targets have been set accordingly. The baseline monitoring data for dissolved oxygen in 1985 indicates 16% attainment. The ambitious ecologically based long-term goal of 100% attainment is necessary to support aquatic life in the Bay. Based on an evaluation of strategies, past progress, response time lags, and recognition of natural variability, the CBPO predicts achievement of the long-term goal in the mid-2030s. Interim DO targets have also been set accordingly. In Chesapeake 2000, the partners committed to achieve the SAV and DO goals by 2010. This deadline was not based on monitoring data or scientific analysis. It was a political commitment to meet a deadline set by a consent decree with VA and EPA, requiring the establishment of a TMDL by</p>	YES	12%

2011. The CBP partners agreed to take steps to remove nutrient/sediment related impairments by 2010 to avoid the TMDL. Subsequently, they developed pollution reduction plans and tallied the costs. In 2005, a science-based assessment utilized 20 years of monitoring data and anticipated continued and recent new commitments from program partners to extrapolate future trends in DO and SAV in the Bay. Additionally, the assessment incorporated the time lag between achievement of pollution reduction goals and ecosystem response. Although the results of this assessment indicate that some tidal water segments will achieve DO and SAV goals well before 2030 and 2040, it will take at least that long before ALL tidal water segments achieve their goals, thus supporting the ultimate end targets.

Evidence: Adoption Statement on Submerged Aquatic Vegetation

(http://chesapeakebay.net/info/pressreleases/ec2003/SAV_adoption_statement.pdf); Moore, K.A., D. J. Wilcox, B. Anderson, T.A. Parham, and M.D. Naylor. 2004. Historical analysis of SAV in the Potomac River and Analysis of Bay-wide Historic SAV to establish a New Acreage Goal. Report to EPA Chesapeake Bay Program. April 2004.

(http://www.vims.edu/bio/sav/Final_SAV_Historical_Report_2004.pdf); Hagy, J. D., W. R. Boynton, C. W. Keefe, and K. V. Wood. 2004. Hypoxia in Chesapeake Bay, 1950-2001: Long-term Change in Relation to Nutrient Loading and River Flow. *Estuaries* 27: 634-658.; MD, VA, DE and DC recently adopted water quality standards for the Bay and its tidal tributaries that protect living resources and are both more attainable and more valid scientifically, incorporating innovative features such as habitat zoning and adoption of area-specific submerged aquatic vegetation acreage targets. State standards available at: MD:

<http://www.epa.gov/waterscience/standards/wqslibrary/md/md-ch2-quality-20051130.pdf>

VA: http://www.epa.gov/waterscience/standards/wqslibrary/va/va_3_wqs.pdf DE:

http://www.epa.gov/waterscience/standards/wqslibrary/de/de_3_wqs.pdf DC:

[http://www.amlegal.com/nxt/gateway.dll?f=templates\\$fn=default.htm\\$vid=dcn:free](http://www.amlegal.com/nxt/gateway.dll?f=templates$fn=default.htm$vid=dcn:free); Draft 2006-2011 EPA Strategic Plan; Assessment to Develop 2011 Targets; Setting and Allocating the Chesapeake Bay Basin Nutrient and Sediment Loads: The Collaborative Process, Technical Tools and Innovative Approaches (EPA 903-R-03-007); Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity, and Chlorophyll a for the Chesapeake Bay and its Tidal Tributaries; Environmental Outcome-Based Management: Using Environmental Goals and Measures in the Chesapeake Bay Program (EPA 903-R-00-016, CBP/TRS 248/00); Chesapeake Bay 2005 Health and Restoration Assessment: Part One - Ecosystem Health

2.3	Does the program have a limited number of specific annual performance measures that can demonstrate progress toward achieving the program's long-term goals?	YES	12%
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Explanation: The Chesapeake Bay Program Office has six annual measures. These annual performance measures demonstrate progress toward reducing nutrients and sediments, both of which are critical for achieving the long term strategic targets. These annual measures also demonstrate the Chesapeake Bay Program's progress towards reducing nutrient pollution from point source facilities and planting streamside forests that serve as a buffer to prevent sediment and nutrient pollution from entering waterways from the land. These reductions in nutrients and sediment pollution will ultimately lead to restoration and protection of the waters and living resources of the Bay. The causal link of the annual measures of nutrient and sediment pollution to "dead zones" and poor Bay health as represented by the long term measures of dissolved oxygen and SAV is clear. (Boesch, et. al.) The annual measures are included in the EPA 2006-2011 Strategic Plan and the EPA 2007 National Water Program Guidance. They report percent achievement toward the long-term goal of (1) implementing best management practices to reduce nitrogen from all sources 162.4 million pounds from 1985 levels to no more than 175 million pounds annually, (2) implementing best management practice to reduce phosphorus from all sources 14.36 million pounds from 1985 levels to no more than 12.8 million pounds annually, (3) implementing best management practices to reduce sediment 1.69 million tons from 1985 levels to no more than 4.15 million tons annually, (4) reducing nitrogen from point sources 50 million pounds from 1985 levels to no more than 38 million pounds annually, (5) reducing phosphorus from point sources 6 million pounds from 1985 levels to no more than 3 million pounds annually, and (6) restoring 10,000 miles of forest buffers. The performance data are based upon a mix of actual and simulated results.

Evidence: 2006-2011 EPA Strategic Plan; Indicator Framework Explanation; Donald Boesch,

<p>Russel Brinsfield, and Robert Magnien. Chesapeake Bay Eutrophication: Scientific Understanding, Ecosystem Restoration, and Challenges for Agriculture. Journal on Environmental Quality, 30. p. 303-320 (2001); http://www.chesapeakebay.net/newsnutrients/a052002.htm; Forest Buffer White Paper; Chesapeake Bay 2005 Health and Restoration Assessment: Part One - Ecosystem Health; Chesapeake Bay 2005 Health and Restoration Assessment: Part Two - Restoration Efforts; National Water Program Strategic Plan 2003 - 2008 and National Program Guidance for FY 2005, FY 2006 and FY 2007</p>			
2.4	<p>Does the program have baselines and ambitious targets for its annual measures?</p> <p><i>Explanation:</i> The program has baselines and ambitious quantified targets for all of its annual performance measures. The CBP relies upon expert opinion and knowledge to develop targets and timeframes for its annual goals. The targets are directly related to the CBP commitment to "correct the nutrient- and sediment-related problems in the Chesapeake Bay and its tidal tributaries sufficiently to remove the Bay and the tidal portions of its tributaries from the list of impaired waters under the Clean Water Act." For these measures, nutrient and sediment cap loads needed to achieve restored water quality have been used as the appropriate end target. Achieving these cap loads is ambitious and necessary in order to achieve the long term measure end targets. In the Chesapeake 2000 agreement, the partners made a commitment to achieve the water quality restoration goals by 2010. This deadline was not based on monitoring data or scientific analysis. It was a political commitment in order to meet a deadline set by a consent decree with VA and EPA, requiring the establishment of a TMDL by 2011. In 2005, an assessment of historic progress, historic and new funding, and implementation of the recent permitting strategy for point source nutrient loads was conducted to determine if the 2010 deadline for achieving this commitment was realistic. This assessment estimated the timeframe for achieving the total phosphorus cap load of 12.8 million pounds annually and the total nitrogen cap load of 175 million pounds annually as far out as 2030. The anticipated timeframe for achieving the point source cap for phosphorus and nitrogen is 2015. A Use Attainability Analysis determined that attainment of the goals is quite ambitious but possible. Interim targets have been set accordingly. For the annual measure of forest buffer restoration, the baseline has been established as 1996. In 2003 the partners agreed to "Enhance and sustain the integrity of aquatic ecosystems over the long term through conservation and restoration of forests along at least 70% of all streams and shorelines, which translates to about 26,000 miles of additional buffers in our jurisdictions with the near term goal of achieving at least 10,000 miles of riparian forest buffers by 2010. Interim targets have been set to achieve this goal.</p> <p><i>Evidence:</i> Directive 03-02: Meeting the Nutrient and Sediment Reduction Goals (http://www.chesapeakebay.net/2003exec.htm); Directive 03-01: Expanded Riparian Forest Buffer Goals (http://www.chesapeakebay.net/info/pressreleases/ec2003/rip_forest_buffer_directive.pdf); Economic Analyses of Nutrient and Sediment Reduction Actions to Restore Chesapeake Bay Water Quality (http://www.chesapeakebay.net/eoanalyses.htm); Backgrounder: What Are Tributary Strategies (http://www.chesapeakebay.net/pubs/tribstrats_backgrounder_final.pdf); Tributary Strategies and Implementation Plans for MD, PA, VA, WV, DC, NY and DE (as part of statewide pollution control strategy) (http://www.chesapeakebay.net/restrtn.htm); Assessment to Develop 2011 Targets; Draft 2006-2011 EPA Strategic Plan; Setting and Allocating the Chesapeake Bay Basin Nutrient and Sediment Loads: The Collaborative Process, Technical Tools and Innovative Approaches (EPA 903-R-03-007); Chesapeake 2000 Agreement (http://www.chesapeakebay.net/wqcchesapeake2000.htm); Chesapeake Bay 2005 Health and Restoration Assessment: Part Two - Restoration Efforts</p>	YES	12%
2.5	<p>Do all partners (including grantees, sub-grantees, contractors, cost-sharing partners, and other government partners) commit to and work toward the annual and/or long-term goals of the program?</p> <p><i>Explanation:</i> All of the many Chesapeake Bay Program partners commit to and work toward the annual and/or long-term goals of the program. There are two main categories of partners for the CBPO: (1) the other federal agencies, states, local authorities, and academic institutions that participate in the restoration effort, and (2) grantees that are required to</p>	YES	12%

	<p>work towards the annual and long-term goals of the program as required in the grant agreements. The federal/state/local partners commit to the annual and long-term goals as signatories of the Chesapeake Bay Agreements and as sponsors and implementers of the State Tributary Strategies. The grantees, who can also be partners, are required to measure and report their performance as it relates to EPA's strategic plan through grant deliverables and written commitments as required under EPA's Environmental Results Policy.</p> <p><i>Evidence:</i> EPA Chesapeake Bay Program Office Grant and Cooperative Agreement Guidance (http://www.epa.gov/region3/chesapeake/grants/2006_CBP_Grant_Guidance.pdf); EPA Order 5700.7 Environmental Results Under Assistance Agreements; CBPO Tier II Monitoring: Sample Report (Alliance for the Chesapeake Bay); EPA Region III Cost Review Analysis Guide for Grant Project Officers; Introduction to Monitoring Grants Funded Under Section 117; Introduction to State Implementation Grants Funded Under Section 117; State Implementation Grants Work plans; Monitoring Grants: Progress Report and Tier II Monitoring; Example of Headwater State Implementation Cooperative Agreement: 2005 Workplan: West Virginia DEP; Example of Headwater State Implementation Cooperative Agreement: 2005 and Tier I Monitoring: West Virginia DEP; EPA Region 3 CBPO Web site with Grantee Performance Data (http://www.epa.gov/region03/chesapeake/grants/progress.htm); Draft 2006-2011 EPA Strategic Plan; Six State Memorandum of Understanding (Headwater States Join Bay Agreement); Chesapeake Bay Program Office (CBPO) Project Officer Off-Site/On-Site Review Guidance and Protocol</p>		
2.6	<p>Are independent evaluations of sufficient scope and quality conducted on a regular basis or as needed to support program improvements and evaluate effectiveness and relevance to the problem, interest, or need?</p> <p><i>Explanation:</i> Since 2005, eight independent, high quality evaluations or studies of the CBPO have been completed or are underway. Evaluators include the Governmental Accountability Office, the EPA Inspector General, and the National Association of Public Administrators (NAPA). Though none of these evaluations covered the entire program, together they provide information on the effectiveness of the majority of the program's activities. Topics of evaluation have included nonpoint source BMPs, air deposition, land use, CBPO grants, point sources, and strategies for reporting progress. The CBPO has also planned a comprehensive program evaluation to have an independent party (1) synthesize the findings and recommendations of the studies conducted by GAO, IG and NAPA and (2) help the CBP prioritize these recommendations for action. Furthermore, the Scientific and Technical Advisory Committee (STAC) was created in 1984 to provide fully independent, high quality scientific and technical advice to the CBP. Their bylaws require them to report directly to the Executive Council of the Chesapeake Bay Program. Funding for STAC comes from a grant with the Chesapeake Research Consortium. STAC follows EPA's peer-review guidelines on all evaluations.</p> <p><i>Evidence:</i> Planned Comprehensive Evaluation of CBP proposal; EPA Office of Inspector General FY 2007 Annual Plan(http://www.epa.gov/oig/reports/2007/AnnualPlan-FiscalYear2007.pdf); GAO Report Chesapeake Bay Program: Improved Strategies Are Needed to Better Assess, Report, and Manage Restoration Progress October 2005; Scientific and Technical Advisory Committee's sponsored external scientific independent peer review of the 2003 Chesapeake Bay water quality criteria; Scientific and Technical Advisory Committee's sponsored external scientific independent peer review of the Phase 5 watershed model; Scientific and Technical Advisory Committee's sponsored external scientific independent peer review of the Chesapeake Bay non-tidal water quality monitoring network; Review of the Water Quality Model Analysis and Recommendations of the Scientific and Technical Advisory Committee; Example STAC Peer Review; EPA Grants Supported Restoring the Chesapeake Bay, EPA IG (Report No. 2006-P-00032), September 2005; Saving the Chesapeake Bay Watershed Requires Better Coordination of Environmental and Agricultural Resources, EPA OIG (Report No. 2007-P-00004), November 2006</p>	YES	12%
2.7	<p>Are Budget requests explicitly tied to accomplishment of the annual and long-term performance goals, and are the resource needs presented in a complete and transparent manner in the program's budget?</p>	NO	0%

Explanation: The program does not have a budget system or presentation that defines the relationship between performance targets and programmatic resources. The program did not clearly address reporting of all direct and indirect costs needed to meet performance targets.

Evidence:

2.8	Has the program taken meaningful steps to correct its strategic planning deficiencies?	YES	12%
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Explanation: The GAO Audit conducted during 2005 was an independent review of the Program's strategic planning methods. The audit report explicitly mentioned that the Program has multiple plans for achieving restoration goals, which could benefit from further integration and prioritization. To improve strategic coordination and focus on priorities, the Program convened a Federal interagency strategic planning group, which organized the Program's 10 "keystone" commitments into five strategic pillars. CBP's new indicators framework and budget were aligned with the five pillars. Federal agencies cooperating with the Bay Program are now using the five pillars as the common strategic framework, and the CBP Implementation Committee is completing a web-based strategy linking all keystone commitment plans to the five pillar framework. The GAO has provided congressional testimony that confirms that actions have been taken by the Program to improve strategic planning. For the most costly and important pillar, Healthy Waters, the Program adopted funding priority guidance in October 2005 linked to its analysis of the most cost-effective restoration actions. This is now reflected in EPA's FY 2007 annual operating guidance issued by the Office of Water (draft).

Evidence: GAO Report "Chesapeake Bay Program: Improved Strategies Are Needed to Better Assess, Report, and Manage Restoration Progress" October 2005; EPA's official response to the GAO report; Implementation Committee Minutes (December 15, 2005); Chesapeake Bay Program Keystone Commitments; Five pillars illustration; Four draft pillar papers; Draft National Water Program FY 2007 Guidance; Testimony of Anu K. Mittal, Director Natural Resources and Environment Before the Subcommittee on Interior, Environment, and Related Agencies Committee on Appropriations, House of Representatives, July 13, 2006 (<http://www.gao.gov/new.items/d06614t.pdf>)

Section 2 - Strategic Planning Score 88%

Section 3 - Program Management

Number	Question	Answer	Score
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3.1	Does the agency regularly collect timely and credible performance information, including information from key program partners, and use it to manage the program and improve performance?	YES	8%
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Explanation: The Chesapeake Bay Program Office coordinates the collection of data on the overall performance of the Chesapeake Bay Program. The CBPO collects the following partner performance data at the state level and at the Bay segment level: submerged aquatic vegetation (SAV); dissolved oxygen (DO); point source nitrogen reductions; point source phosphorus reductions; forest buffers planted; best management practice implementation to reduce nutrient and sediment pollution. The CBPO has collected adequate baseline performance data. The CBPO ties performance reporting requirements to grants provided by the office. In all grant categories, Chesapeake Bay Program Project Officers gather performance data on a regular basis and provide feedback to grantees when appropriate to improve performance. The CBPO uses this performance information in its efforts to coordinate restoration of the Bay. For example, data is used for annual assessments of restoration efforts and ecosystem health. In addition, states and EPA use Bay data to develop tributary strategies and assess progress in implementing those strategies. The CBPO also uses performance data in its models to make predictions about the effects of BMP implementation on pollutant discharge levels and water quality.

Evidence: Adoption Statement on Submerged Aquatic Vegetation; Historical analysis of SAV in the Potomac River and Analysis of Bay-wide Historic SAV to establish a New Acreage Goal; Directive 03-02: Meeting the Nutrient and Sediment Reduction Goals; Recently adopted

	<p>water quality standards for the Bay and its tidal tributaries for MD, VA, DE, and DC; Directive 03-01: Expanded Riparian Forest Buffer Goals; EPA Region 3 CBPO Web site for Environmental Performance Data (State Implementation Grants); CBP Grant Guidance Chesapeake Bay 2005 Health and Restoration Assessment: Part One - Ecosystem Health; Chesapeake Bay 2005 Health and Restoration Assessment: Part Two - Restoration Efforts; Maryland Tributary Strategy Implementation Plan, February 22, 2006; Chesapeake Bay Program Modeling (http://www.chesapeakebay.net/restrtn.htm)</p>		
3.2	<p>Are Federal managers and program partners (including grantees, sub-grantees, contractors, cost-sharing partners, and other government partners) held accountable for cost, schedule and performance results?</p> <p><i>Explanation:</i> Federal managers and staff are held accountable for cost, schedule, and performance results through their performance agreements, which directly reference the environmental outcomes listed in EPA's Strategic Plan. Staff project officers are held accountable for ensuring that all grant policies and procedures are followed. Grantees and sub-grantees are held accountable as they are required to submit semi-annual progress reports, which enable the Project Officer to determine if the recipient is meeting the annual and long-term goals of the program. Non-grantee partners are held accountable by the seven committees and eight subcommittees that oversee the overall Chesapeake Bay Program, of which EPA is a member of several. Furthermore, program partners are also held accountable through the implementation of the State Tributary Strategies and at the annual Executive Council meeting. Finally, program partners are also held accountable to the general public through the transparent and frequent reporting on Bay restoration efforts.</p> <p><i>Evidence:</i> EPA Region 3 Determination on the Disallowance of Certain Grantee Costs (Alliance for the Chesapeake Bay); State Implementation Grants Workplans, Sample Progress Reports and EPA Tier II monitoring reports; CBPO Tier II Monitoring: Sample Report (Alliance for the Chesapeake Bay); Small Watershed Grants: Workplan, Progress Report, and Tier II Monitoring Report; EPA Chesapeake Bay Program Office Grant and Cooperative Agreement Guidance; EPA CBPO Performance Agreements and Focus Areas for Senior Staff; EPA CBPO Project Officer Responsibilities; EPA Order 5700.7 Environmental Results Under Assistance Agreements; FY 2006 Request for Proposals (RFP) for Modeling, GIS, Data Analysis and Information Management for CBPO; Cost Review Analysis Conducted by Project Officer (fish passage grant); Monitoring Grants: Progress Report and Tier II Monitoring; EPA Region 3 CBPO Web site with Grantee Performance Data (http://www.epa.gov/region03/chesapeake/grants/progress.htm); EPA Project Officer's Comments to PA DEP regarding their unsatisfactory progress report</p>	YES	8%
3.3	<p>Are funds (Federal and partners') obligated in a timely manner, spent for the intended purpose and accurately reported?</p> <p><i>Explanation:</i> Some internal programmatic financial data for FY 2005 was provided, which implied that the program is tracking expenditures. However, the body of evidence did not show a clear operating plan, an obligation schedule and a limited amount of unobligated funds at the end of the year. The program is tracking obligations, as they provided evidence of regional obligations as of February 2006. However, this information was not sufficient to determine if limited unobligated balances remain at the end of the year. Project officers at the CBPO track grantee expenditures prior to mid-year and close-out program reviews. If expenditures are found to be outside the grant scope, those resources are refunded to the Agency.</p> <p><i>Evidence:</i> CBPO FY 05 Internal Financial Tracking Spreadsheets 1 and 2; EPA Region 3 Fiscal Year 2006 Status of Extramural Funds through February 28, 2006; CBPO Tier II Monitoring: Sample Report (Alliance for the Chesapeake Bay); EPA CBPO Project Officer Responsibilities; EPA Order 5700.7 Environmental Results Under Assistance Agreements; EPA Region 3 Determination on the Disallowance of Certain Grantee Costs (Alliance for the Chesapeake Bay); Financial Data Warehouse Form; EPA Project Officer's Comments to PA DEP regarding their unsatisfactory progress report</p>	NO	0%
3.4	<p>Does the program have procedures (e.g. competitive sourcing/cost comparisons, IT improvements, appropriate incentives) to measure and achieve efficiencies and cost effectiveness in program execution?</p>	YES	8%

Explanation: The Chesapeake Bay Program Office has several processes in place to achieve efficiencies and cost effectiveness. Competitive sourcing is an integral part of the CBPO grants program. The Budget Steering Committee reviews and selects grants based on program priorities and also compares costs of projects. Cost comparisons are required as part of the CBPO's regular procedures. Cooperative agreements and grants are required to undergo a Cost Review Analysis by the project officer before a cooperative agreement or grant can be awarded. Since 1996, the CBPO has managed a coordinated Chesapeake Bay data management system called the Chesapeake Information Management System (CIMS). By providing a central database, which minimizes duplication of efforts, CIMS enables more efficient delivery of government services to conduct business and share policy and technical information across agency and jurisdictional boundaries. Another IT efficiency is the Chesapeake Bay Program Regional Exchange for best management practices (BMPs) which automates data that was once standardized individually. An efficiency measure has been developed to assess the efficiency of the overall Chesapeake Bay Program effort with regard to encouraging implementation of the most cost effective best management practices for nitrogen reduction. The measure tracks nitrogen load reductions from implementation of agricultural BMPs per million dollars spent on implementing those BMPs and is illustrative for monitoring changes in efficiency through time.

Evidence: Chesapeake Information Management System (CIMS) (<http://www.chesapeakebay.net/cims/index.htm>); Chesapeake Bay Program Regional Exchange for Best Management Practices (BMPs) (<http://www.exchangenetwork.net/exchanges/water/chesapeake.htm>); EPA CBPO Project Officer Responsibilities; Sample Cost Review Analysis Conducted by Project Officer (fish passage grant); Example Chesapeake Bay Program Office Requests for Proposal (RFP); EPA Chesapeake Bay Program Office Grant and Cooperative Agreement Guidance; Economic Analyses of Nutrient and Sediment Reduction Actions to Restore Chesapeake Bay Water Quality (<http://www.chesapeakebay.net/econalyses.htm>); Example of Cost Effectiveness and Reduction Efficiencies; Competition Policy - Chesapeake Bay Program Office: Grants and Cooperative Agreements

3.5 **Does the program collaborate and coordinate effectively with related programs?** YES 8%

Explanation: The Chesapeake Bay Program Office is a unique federal program, which works collaboratively with multiple partners to help coordinate restoration efforts in the Chesapeake Bay. As the lead Federal government representative, the CBPO is an integral member of the broader Chesapeake Bay Program, which includes 20 federal agencies, six states, the District of Columbia, over 1600 local governments, citizens, and scientists from academia and public institutions. The CBPO collaborates and coordinates restoration activities and resource allocations through the committee framework of the Chesapeake Bay Program. In addition, at the CBPO EPA Staff work alongside staff from NOAA, Forest Service, Park Service and other federal agencies and nonprofits such as the Alliance for the Chesapeake Bay (ACB) and the Chesapeake Research Consortium (CRC), which allows EPA to coordinate and collaborate activities with related programs on a daily basis.

Evidence: Chesapeake Bay Program Organization Structure (<http://www.chesapeakebay.net/committee.htm>); Chesapeake 2000 Agreement (<http://www.chesapeakebay.net/wqcchesapeake2000.htm>); Six State Memorandum of Understanding (Headwater States Join Bay Agreement); Chesapeake Bay Program Who's Who (http://www.chesapeakebay.net/search/whos_who.htm); Chesapeake Bay Nontidal Water Quality Monitoring Network MOU; Chesapeake Information Management System (<http://www.chesapeakebay.net/cims/index.htm>); List of CBP partners (<http://www.chesapeakebay.net/baypartners.htm>)

3.6 **Does the program use strong financial management practices?** YES 8%

Explanation: The Chesapeake Bay Program Office follows EPA's financial management guidelines for committing, obligating, reprogramming, and reconciling appropriated funds. At each step in the process, the propriety of the obligation and subsequent payment is reviewed. The Agency has a system of controls and accountability in place based on GAO, Treasury, and OMB guidance, as well as generally acceptable accounting practices (GAAP), to minimize improper payments. EPA trains staff to ensure that they understand their roles and

	<p>responsibilities for invoice review and for carrying out the financial aspects of the program. The CBPO has its own internal tracking system that supplements the Agency-wide Integrated Financial Management System (IFMS). This additional tracking system includes monthly reports that track all expenditures. EPA's Region III Office conducts regular resources management reviews which focus on integrating financial and program performance information. EPA received an unqualified audit opinion on its FY 2004 financial statements. The audit found no Agency level material weakness and no substantial noncompliance.</p> <p><i>Evidence:</i> EPA's Annual Reports and Financial Statements, including audit opinions (http://www.epa.gov/ocfo/finstatement/finstatement.htm); EPA Region 3 Fiscal year 2006 Status of Extramural Funds Through February 28, 2006; CBPO FY 05 Internal Financial Tracking Spreadsheet 1; EPA Order 5700.6A1 Policy on Compliance, Review, and Monitoring;</p>		
3.7	<p>Has the program taken meaningful steps to address its management deficiencies?</p> <p><i>Explanation:</i> The findings associated with all external and internal reviews are responded to with corrective action plans. In many instances, changes in management systems are discussed with program partners and their input is considered in the development of corrective actions. For example, in October 2005 the US Government Accountability Office (GAO) issued a report titled "Chesapeake Bay Program: Improved Strategies Are Needed to Better Assess, Report, and Manage Restoration Progress." The CBPO has led the effort to implement activities that will address each of GAO's recommendations.</p> <p><i>Evidence:</i> GAO Report Chesapeake Bay Program: Improved Strategies Are Needed to Better Assess, Report, and Manage Restoration Progress. October 2005; Chesapeake Bay Program Office response to the GAO review; June 2006 GAO Follow-up; Testimony of Anu K. Mittal, Director Natural Resources and Environment Before the Subcommittee on Interior, Environment, and Related Agencies Committee on Appropriations, House of Representatives, July 13, 2006 (http://www.gao.gov/new.items/d06614t.pdf); Implementing CEC Directive 04-2; EPA Draft 2006-2011 Strategic Plan</p>	YES	8%
3.BF1	<p>Does the program have oversight practices that provide sufficient knowledge of grantee activities?</p> <p><i>Explanation:</i> The Chesapeake Bay Program Office requires all grantees, including Block Grant recipients, to provide work plans and semi-annual progress reports, which document the progress made in achieving the objectives of the project work plans. These reports enable the Project Officer to determine whether the recipient is meeting the goals of EPA's strategic plan and the State Tributary Strategies. The Chesapeake Bay Program Office also collects and reviews annual reports and conducts annual performance reviews, including on-site visits and in-depth annual Tier II monitoring. The CBPO has a grants tracking system to assist project officers with their oversight responsibilities.</p> <p><i>Evidence:</i> EPA Region 3 CBPO Web site with Grantee Performance Data (http://www.epa.gov/region03/chesapeake/grants/progress.htm); EPA CBPO Project Officer Responsibilities; EPA Order 5700.6A1 Policy on Compliance, Review, and Monitoring; EPA Order 5700.7 Environmental Results Under Assistance Agreements; EPA Project Officer's Comments to PA DEP regarding their unsatisfactory progress report</p>	YES	8%
3.BF2	<p>Does the program collect grantee performance data on an annual basis and make it available to the public in a transparent and meaningful manner?</p> <p><i>Explanation:</i> The Chesapeake Bay Program Office collects grantee performance data from all grantees, including Block Grant recipients and makes the data available to the public in a transparent and meaningful manner, primarily through the Internet. Data from state grants for implementation and monitoring are provided to EPA and the public through semi-annual progress reports. All semi-annual progress reports are posted to EPA's CBPO Web site. The CBPO also collects water quality program performance data through its monitoring grants, state implementation grants, and watershed modeling data grants and makes this information available on EPA's Regional CBPO Web site. This information is also made available to the public in an understandable and meaningful way through the environmental indicators of the Chesapeake Bay that is widely used by the public and stakeholders.</p>	YES	8%

<p><i>Evidence:</i> EPA Region 3 CBPO Web site with Grantee Performance Data (http://www.epa.gov/region03/chesapeake/grants/progress.htm); Reducing Pollution Data Survey; Dissolved Oxygen Indicator and Data Survey; Submerged Aquatic Vegetation Indicator and Data Survey; Chesapeake Bay 2005 Health and Restoration Assessment: Part One - Ecosystem Health; Chesapeake Bay 2005 Health and Restoration Assessment: Part Two - Restoration Efforts;</p>			
3.CO1	<p>Are grants awarded based on a clear competitive process that includes a qualified assessment of merit?</p> <p><i>Explanation:</i> The Chesapeake Bay Program has both block and competitive grants. Since EPA's Competitive Policy went into effect in January, 2005, the CBPO has not had any awards that are sole source or renewed; all of the awards (100%) were competed. The CBPO issues a Request for Initial Proposals (RFIP) to the public, which is based on priorities developed by the Chesapeake Bay Program budget steering committee (BSC), chaired by EPA. The priorities are based on goals of the Chesapeake 200 agreement. The CBPO sends each RFP to a list of approximately 500 recipients who have expressed interest in CBP funding opportunities. In addition, the CBPO posts each RFP on EPA's CBPO website, EPA's Grants website, and the CBP's website. Each RFP provides a list of evaluation criteria, which a Review Panel uses to conduct a merit evaluation of each proposal. The Review Panel consists of experts who are selected based on their technical and substantive expertise and who certify they have no "conflict of interest." The Review Panel recommends projects for funding to the BSC which reviews all proposals and forwards their recommendations to the Implementation Committee (IC). The IC then makes the ultimate recommendations to EPA for funding. EPA uses these recommendations to make the ultimate funding decisions.</p> <p><i>Evidence:</i> Competitive Requests For Proposals (listed at http://www.epa.gov/region03/chesapeake/grants.htm); CBPO Grant Guidance; EPA Region 3 CBPO Web site with Grantee Performance Data and list of all competitive grants issued (http://www.epa.gov/region03/chesapeake/grants/progress.htm); Competition Policy - Chesapeake Bay Program Office: Grants and Cooperative Agreements</p>	YES	8%
3.CO2	<p>Does the program have oversight practices that provide sufficient knowledge of grantee activities?</p> <p><i>Explanation:</i> The Chesapeake Bay Program Office's requires grantees, including competitive grant recipients, to provide work plans and semi-annual progress reports, which document the progress made in achieving the project work plans. These reports enable the Project Officer to determine whether the recipient of a competitive grant is meeting the goals of EPA's strategic plan and the State Tributary Strategies. The Chesapeake Bay Program Office also collects and reviews annual reports and conducts annual performance reviews of competitive grantees, including on-site visits and in-depth annual Tier II monitoring. The CBPO also has a grants tracking system to assist project officers with their oversight responsibilities.</p> <p><i>Evidence:</i> Competitive Requests For Proposals (listed at http://www.epa.gov/region03/chesapeake/grants.htm); Small Watershed Grants: Workplan, Progress Report, and Tier II Monitoring Report; CBPO Tier II Monitoring: Sample Report (Alliance for the Chesapeake Bay); EPA CBPO Project Officer Responsibilities; EPA Order 5700.6A1 Policy on Compliance, Review, and Monitoring; EPA Order 5700.7 Environmental Results Under Assistance Agreements; EPA Region 3 CBPO Web site with Grantee Performance Data (http://www.epa.gov/region03/chesapeake/grants/progress.htm);</p>	YES	8%
3.CO3	<p>Does the program collect grantee performance data on an annual basis and make it available to the public in a transparent and meaningful manner?</p> <p><i>Explanation:</i> The Chesapeake Bay Program Office collects grantee performance data from all grantees, including competitive grant recipients, and makes the data available to the public in a transparent and meaningful manner, primarily through the Internet. Data and reports from competitive grantees are provided to EPA and the public through semi-annual and quarterly progress reports. All progress reports are posted to EPA's CBPO Web site. This information is also made available to the public in an understandable and meaningful way through the environmental indicators of the Chesapeake Bay Program, which are widely</p>	YES	8%

disseminated to the public and stakeholders.

Evidence: EPA Region 3 CBPO Web site with Grantee Performance Data (<http://www.epa.gov/region03/chesapeake/grants/progress.htm>); Small Watershed Grants: Workplan, Progress Report, and Tier II Monitoring Report; CBPO Tier II Monitoring: Sample Report (Alliance for the Chesapeake Bay); Small Watershed Grants: Workplan, Progress Report, and Tier II Monitoring Report; Reducing Pollution Data Survey; Dissolved Oxygen Indicator and Data Survey; Submerged Aquatic Vegetation Indicator and Data Survey; Chesapeake Bay 2005 Health and Restoration Assessment: Part One - Ecosystem Health; Chesapeake Bay 2005 Health and Restoration Assessment: Part Two - Restoration Efforts

Section 3 - Program Management Score 91%

Section 4 - Program Results/Accountability

Number	Question	Answer	Score
4.1	Has the program demonstrated adequate progress in achieving its long-term performance goals?	YES	20%
	<p><i>Explanation:</i> The Chesapeake Bay Program has achieved steady progress toward achieving the SAV and DO goals in the face of dramatic population growth. This is clearly demonstrated by the achievement of 39% of the SAV restoration goal in 2005 as compared to 21% in 1985 and 34% of the dissolved oxygen (DO) restoration goal in 2005 as compared to 16% in 1988. Although the overall long-term trend for the CBPO in meeting its long-term performance goals is positive, there are some years in which the annual performance targets for SAV under EPA's 2003-2008 Strategic Plan were not met. These targets were based upon the Chesapeake 2000 agreement that aimed at achieving water quality restoration goals by 2010. As discussed in Questions 2.1 and 2.2, these political commitments were very ambitious and have since been determined to be scientifically unrealistic. A more realistic date for achievement of the 185,000 acre SAV goal is 2040. The program has since revised the interim targets to reflect this more realistic yet ambitious timeframe.</p> <p><i>Evidence:</i> See evidence of questions 2.1 and 2.2.</p>		
4.2	Does the program (including program partners) achieve its annual performance goals?	LARGE EXTENT	13%
	<p><i>Explanation:</i> The Chesapeake Bay Program has achieved steady, long-term progress toward the annual performance goals in the face of dramatic population growth. This is clearly demonstrated by the achievement of 41% of the total nitrogen reduction goal; 58% of the total phosphorus reduction goal; 54% of the sediment reduction goal; 61% of the point source nitrogen reduction goal; and 80% of the point source phosphorus reduction goal in 2005, as compared to 0% for all five of these measures in 1986. It is also demonstrated by the achievement of 38% of the forest buffer planting goal in 2005 as compared to 0.1% in 1997. Although the overall long-term trend for the CBPO in meeting its annual performance goals is positive, there are some years in which the annual performance targets under EPA's 2003-2008 Strategic Plan were not met. Independent sources and EPA attribute this to the targets being overly ambitious for nutrient and sediment reduction, and forest buffer planting. The targets in the 2003-2008 Strategic Plan were based upon the Chesapeake Bay 2000 Agreement that aimed at restoration of Bay water quality by 2010. As discussed in questions 2.3 and 2.4, The Chesapeake Bay Program Office revised the targets to be more realistic while maintaining their ambitiousness. Interim targets reflecting this more realistic yet ambitious timeframe are reflected here and in the 2006-2011 EPA Strategic Plan.</p> <p><i>Evidence:</i> See evidence for questions 2.3 and 2.4.</p>		
4.3	Does the program demonstrate improved efficiencies or cost effectiveness in achieving program goals each year?	SMALL EXTENT	7%
	<p><i>Explanation:</i> The CBPO creates scientifically rigorous information on the cost effectiveness of best management practices that is delivered to partners for their use in designing the most cost effective restoration plans. The data is incorporated into critical documents such as the states Tributary Strategies to enable increased cost effectiveness over time. The CBPO works</p>		

to encourage implementation of the most cost effective and efficient reduction strategies, which typically are BMPs in agricultural areas. The new annual efficiency measure demonstrates increasing efficiency of nitrogen reducing best management practices in agricultural watersheds. Given that this is a new measure, the program has not yet demonstrated achievement of targets. The first targets are set in 2006.

Evidence: Maryland Tributary Strategy Summary; Chesapeake Bay Commission's Cost of a Clean Bay

4.4	Does the performance of this program compare favorably to other programs, including government, private, etc., with similar purpose and goals?	LARGE EXTENT 13%
	<p><i>Explanation:</i> The Chesapeake Bay is the nation's largest and most biologically productive estuary and the Chesapeake Watershed has the largest ratio of land to water in the world. These unique properties make the Chesapeake Bay somewhat unique and potentially difficult to compare with other similar restoration efforts. However, other restoration efforts involve similar impairments and challenges as the CBP is facing. Therefore, it is instructive to compare the CBP with other large-scale ecosystem restoration efforts. Generally, the evidence suggests that the CBP has been a model for using science as a basis for decision making, developing ecosystem based outcomes, and fostering a cooperative approach to environmental management. The CBP is often cited as the first large-scale restoration effort in the country, beginning with the 1983 Chesapeake Bay Agreement. (Northeast-Midwest Institute, p. 6). The Northeast Midwest Institute's analysis, "Large-Scale Ecosystem Restoration: Lessons for Existing and Emerging Initiatives" provides the best comparison based upon 5 categories: organizing, governing, planning, implementing, and accounting. The analysis focused on 7 ecosystem restoration efforts across the United States. The findings indicate that the CBP compares favorably and "provides an interesting model for large scale ecosystem restoration" (p. 12). An overall conclusion regarding achievement of progress is that the effort has "held the line...which is no small accomplishment given the growth and development in the watershed" (p.78).</p> <p><i>Evidence:</i> Large-Scale Ecosystem Restoration Initiatives, Northeast Midwest Institute (http://www.nemw.org/restoration_products.htm); New Approaches to Environmental Management: Lessons from the Chesapeake Bay, Dr. Donald Boesch in Trends in Managing the Environment; The Formation of Large-scale Collaborative Resource Management Institutions: Clarifying the Roles of Stakeholders, Science, and Institutions, Tanya Heikkila and Andrea K. Gerlak. The Policy Studies Journal, Vol.33, No.4, 2005; A Comparison of Issues and Management Approaches in Moreton Bay, Australia and Chesapeake Bay, USA. W.H. Dennison, et al. Developments in Ecosystems, volume 1. 2004</p>	
4.5	Do independent evaluations of sufficient scope and quality indicate that the program is effective and achieving results?	LARGE EXTENT 13%
	<p><i>Explanation:</i> Almost since its inception, the Chesapeake Bay Program has been the subject of review and analysis by numerous national academic institutions, government agencies, and others. In a recent GAO Program review, that organization used the Bay Program's budget process, which links environmental results with all Program activities and expenditures, to evaluate the investments in the Bay restoration effort being made by 10 Federal and 3 State governments. The GAO review suggested that the program could be more effective but also recognized that results are being achieved by stating that "the Bay Program has made significant strides" in a "massive, difficult, and complex undertaking." In September, 2006 the EPA Inspector General reviewed the CBPO grant programs and concluded that "EPA effectively awarded grant funds toward projects that should maximize environmental benefits in the Chesapeake Bay."</p> <p><i>Evidence:</i> EPA Grants Supported Restoring the Chesapeake Bay, EPA Inspector General, September 6, 2006 (Report No. 2006-P-00032); Chesapeake Bay Program: Improved Strategies Are Needed to Better Assess, Report, and Manage Restoration Progress, GAO, October 2005; see additional evidence in question 2.6</p>	
Section 4 - Program Results/Accountability		Score 67%

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